

Claims

That which is claimed:

1. A data output circuit, comprising:
 - a plurality of registers;
 - a plurality of register output selection switches respectively connected to the
 - 5 plurality of registers via a plurality of first wires having first lengths, pairs of the plurality of register output selection switches being connected by respective common active regions;
 - a first data group selection switch that is connected to the common active regions of a first subset of the plurality of register output selection switches via a plurality of second wires having second lengths that are shorter than the first lengths;
 - a second data group selection switch that is connected to the common active
 - 10 regions of a second subset of the plurality of register output selection switches via a plurality of third wires having third lengths that are shorter than the first lengths, the first and second data group selection switches being disposed approximately a same distance from the first and second subsets of the plurality of register output selection switches, respectively; and
 - an output driver that is connected to the first and second data group selection
 - 15 switches.
2. The data output circuit of Claim 1, wherein the plurality of register output selection switches comprises a plurality of CMOS transmission gates, respectively.
3. A data output circuit, comprising:
 - a plurality of registers;
 - a plurality of register output selection switches respectively connected to the
 - 20 plurality of registers, pairs of the plurality of register output selection switches being connected by respective common active regions;
 - a first data group selection switch that is connected to the common active regions of a first subset of the plurality of register output selection switches;
 - a second data group selection switch that is connected to the common active regions of a second subset of the plurality of register output selection switches; and

an output driver that is connected to the first and second data group selection switches.

4. The data output circuit of Claim 3, wherein the plurality of register output selection switches comprises a plurality of CMOS transmission gates, respectively.

5. A data output circuit, comprising:
a plurality of registers;
5 a plurality of register output selection switches respectively connected to the plurality of registers via a plurality of first wires having first lengths;
a data group selection switch that is connected to the plurality of register output selection switches by a plurality of second wires having second lengths that are shorter than the first lengths; and
10 an output driver that is connected to the data group selection switch.

6. A data output circuit, comprising:
a plurality of registers;
a plurality of register output selection switches respectively connected to the
15 plurality of registers;
a first data group selection switch that is connected to a first subset of the plurality of register output selection switches via a first line having a first length;
a second data group selection switch that is connected to a second subset of the plurality of register output selection switches via a second line having a second length that is approximately equal to the first length; and
an output driver that is connected to the first and second data group selection
20 switches.

7. A data output circuit, comprising:
a plurality of registers;
a plurality of register output selection switches respectively connected to the
25 plurality of registers and arranged in a circular configuration;

a plurality of overlap prevention control signal lines respective ones of which are connected to pairs of the plurality of register output selection switches;

a data group selection switch that is connected to the plurality of register output selection switches; and

5 an output driver that is connected to the data group selection switch.